

## U.S. International Transactions in Royalties and Fees, 1967-78

IN recent years, U.S. international transactions in royalties and fees have attracted increasing attention, in part because they can be considered a specific, although limited, measure of the transfer of technology between the United States and other countries. An earlier article discussed the relationship of these transactions to the transfer of technology, i.e., to the transfer of scientific and engineering knowledge applied to the design and manufacture of products and to production processes; described the coverage and limitations of the data; and examined the geographic composition of the transactions through 1972.<sup>1</sup> The present article examines the industrial composition of the transactions through 1978.

The data compiled by BEA on these transactions consist of U.S. receipts and payments of royalties and fees between direct investors and their foreign affiliates, and between U.S. companies and unaffiliated foreign companies. The classification, by industry, of transactions between affiliated parties, i.e., direct investment-related transactions, by industry, has been available for several years; the classification, by industry, of transactions between unaffiliated parties has only recently been completed. The latter makes possible an industry analysis of total U.S. transactions in royalties and fees as well as a comparison, by industry, of affiliated transactions and unaffiliated transactions.

**NOTE.**—John W. Rutter and Gregory C. Fough of the International Investment Division provided data and analysis concerning affiliated royalties and fees.

1. Mary Frances Tepin, "U.S. International Transactions in Royalties and Fees: Their Relationship to the Transfer of Technology," *SURVEY OF CURRENT BUSINESS*, December 1973.

**Data coverage.**—The BEA data on royalties and fees measure payments for the use of rights or intangible property (copyrights, trademarks, patents, techniques, processes, formulas, designs, franchises, manufacturing rights, etc.) and management fees. Royalties refer to payments for the use of copyrights or trademarks. There are two classifications of fees—licensing fees and management fees. Licensing fees refer to charges for the use of patents or industrial processes. Management fees refer to charges, mainly by parent companies to their affiliates, for professional and administrative services, consulting and technical advice, research and development, and other expenses allocated by the home office. In the regular international transactions tables in the *SURVEY OF CURRENT BUSINESS*, the BEA data on direct investment-related royalties and fees include film rentals.<sup>2</sup> These rentals are excluded from the data presented in this article because they are not considered to be related to the transfer of technology. In the international transactions tables, unaffiliated royalties and fees do not include film rentals. Affiliated transactions are on a net basis—receipts by U.S. parents from their foreign affiliates are net of payments to the affiliates; payments by U.S. subsidiaries to their foreign parents are net of receipts from the parents.

**Industry classification.**—With one exception, the analysis of royalties and fees by industry utilizes classifications based on the categories, for establishments, described in the *Standard Industrial Classification Manual* (1972).

2. In tables 1, 2, and 10 of the U.S. international transactions articles in the March, June, September, and December issues of the *SURVEY*, affiliated receipts and payments are shown in lines 7 and 23, respectively. Unaffiliated receipts and payments are shown in lines 8 and 24, respectively.

The exception is the petroleum industry, which refers to all petroleum-related activities from exploration through retailing. All other classifications exclude petroleum-related activities. Affiliated data are classified by the industry of the affiliate and unaffiliated data are classified by the principal product or service of the U.S. company.

In this article, for receipts, the major industry categories shown are manufacturing, petroleum, mining and smelting, and other industries. For payments, the major categories shown are manufacturing, petroleum, and other industries. For receipts, a more detailed breakdown of manufacturing is presented, because the magnitude of transactions is substantial.

**Overview.**—U.S. companies' earnings of royalties and fees increased substantially from 1967 to 1978. In 1967, they earned \$1.5 billion from both affiliated and unaffiliated foreign companies; in 1978, they earned \$5.4 billion (table 1). During this period, manufacturing accounted for nearly 70 percent of the total. Within manufacturing, the machinery and chemicals and allied products industries together accounted for 60 percent of receipts. U.S. companies' payments of royalties and fees to foreign companies remained rather small; they were \$0.2 billion in 1967 and \$0.8 billion in 1978. Manufacturing accounted for about 80 percent of total payments during 1972-78, the years for which industry data are available.

### Receipts

U.S. companies earn much more in receipts of royalties and fees from foreign affiliates than from unaffiliated foreign companies. Receipts from affiliates were 74 percent of total receipts in 1967 and 80 percent in 1978, and

Table 1.—U.S. International Transactions in Royalties and Fees with Affiliated and Unaffiliated Foreign Residents

(Millions of dollars)

	1967	1975	1976	1977	1978 *
<b>Receipts</b>					
<b>Total</b> .....	1,516	4,068	4,084	4,474	5,429
Affiliated.....	1,123	3,251	3,262	3,554	4,364
Unaffiliated.....	393	757	822	920	1,065
<b>Manufacturing</b> <sup>1</sup> .....	1,042	2,776	2,833	3,138	3,766
Affiliated.....	706	2,098	2,110	2,346	2,814
Unaffiliated.....	336	678	723	792	952
<b>Machinery</b> <sup>1</sup> .....	356	1,137	1,166	1,308	1,618
Affiliated.....	219	837	871	965	1,188
Unaffiliated.....	137	300	297	343	430
<b>Chemicals and allied products</b> <sup>1</sup> .....	232	561	588	627	761
Affiliated.....	162	439	450	479	600
Unaffiliated.....	70	122	138	148	161
<b>Transportation equipment</b> <sup>1</sup> .....	129	251	290	302	374
Affiliated.....	99	194	222	247	265
Unaffiliated.....	30	57	68	55	109
<b>Other manufacturing</b> <sup>1</sup> .....	324	826	785	900	1,013
Affiliated.....	226	627	566	654	702
Unaffiliated.....	98	199	219	246	251
<b>Other industries</b> <sup>1</sup> .....	473	1,232	1,251	1,338	1,661
Affiliated.....	416	1,153	1,152	1,210	1,548
Unaffiliated.....	57	79	99	128	113
<b>Payments</b>					
<b>Total</b> .....	166	473	482	434	610
Affiliated.....	62	287	293	243	396
Unaffiliated.....	104	186	189	191	214
<b>Manufacturing</b> <sup>1</sup> .....	n.a.	389	396	364	456
Affiliated.....	n.a.	217	219	188	264
Unaffiliated.....	100	172	177	176	192
<b>Other industries</b> <sup>1</sup> .....	n.a.	84	86	71	153
Affiliated.....	n.a.	70	73	56	132
Unaffiliated.....	4	14	13	15	21

\* Preliminary. n.a. Not available.

1. For industry definitions see footnotes to table 2.

grew at an average annual rate of 13.3 percent from 1967 to 1978 (chart 12). Faced with product competition from other countries, U.S. companies apparently prefer to exercise an equity interest in the use of their intangible property and proprietary knowledge in order to protect their competitive positions. Most of the growth in receipts from foreign affiliates occurred in the machinery and chemicals and allied products industries, where there have been extensive technological changes. Affiliates in these industries are concentrated in the developed countries and are generally provided with "front-end" technology—for example, the latest innovations in the use of computers, semi-conductors, and integrated circuits and the most advanced techniques for the production of chemicals. Less sophisticated information also may be shared by the U.S. company, particularly if it relates to firm-specific technology.

In recent years, the increase in the number of restrictions on U.S. direct investment abroad by potential host countries may have hampered the growth in affiliated transactions in

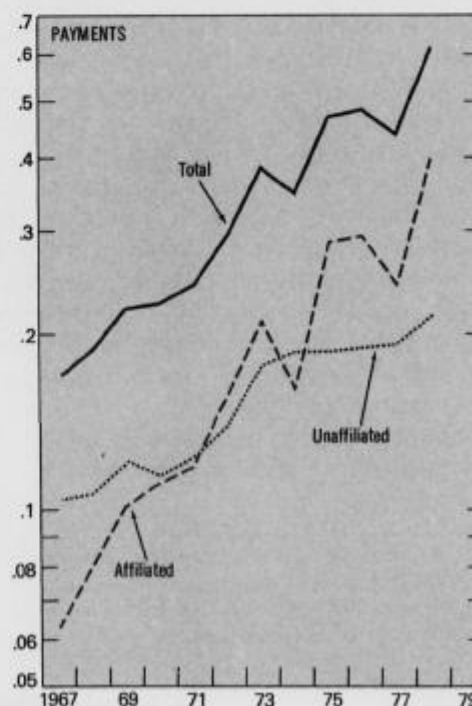
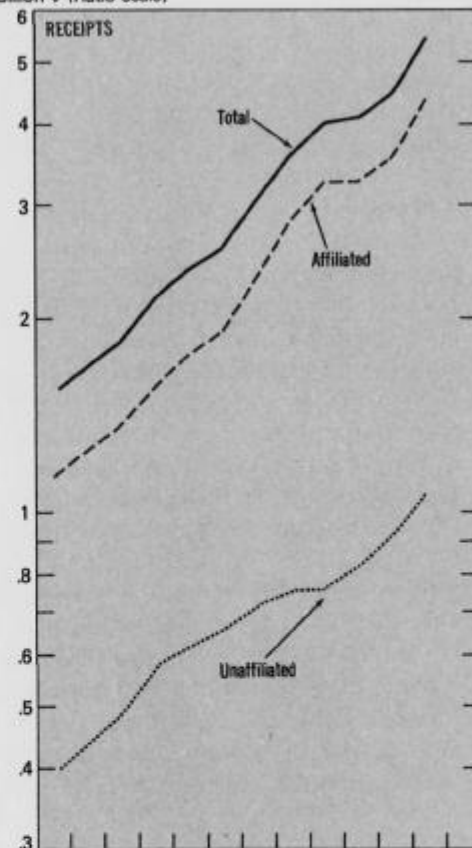
royalties and fees. These restrictions range from Eastern Europe's longstanding prohibition of equity investments to the Andean Pact "fade-out" rules introduced in 1971 (which require foreign affiliates to sell shares to local investors and increase the local content of their products) and Mexico's 1973 "Law on the Transfer of Technology" (which requires government approval for all technology agreements with foreign companies). There are some countries, particularly the advanced developing countries, where U.S. firms must provide their technology to local firms in order to participate in local markets.

Receipts of royalties and fees from unaffiliated foreigners, which grew at an average annual rate of 9.6 percent from 1967 to 1978, also are concentrated in the machinery and chemicals and allied products industries of the developed countries. Licensing and other agreements with unaffiliated foreign companies are often used by U.S. companies that prefer to utilize the experience of foreign companies with regard to production processes and marketing networks, and by U.S. companies that lack

CHART 12

## U.S. International Transactions in Royalties and Fees

Billion \$ (Ratio scale)



U.S. Department of Commerce, Bureau of Economic Analysis

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the resources for extensive exports or foreign operations. Under these agreements, foreign companies agree to pay royalties and fees, often based on a percentage of sales, for the right to manufacture and market products utilizing the technology of the U.S. company. For the most part, U.S. companies enter into agreements with unaffiliated foreign companies where the technology provided is highly advanced.

**Royalties and licensing fees.**—Transactions in royalties and fees with unaffiliated companies consist almost entirely of royalties and licensing fees. Transactions with affiliated foreign companies include, as well, management fees; these fees are discussed separately.

Receipts of royalties and licensing fees from affiliates grew more rapidly than receipts from unaffiliated companies—17.7 percent per year from 1967 to 1978, compared with 9.6 percent. In

1978, receipts of royalties and licensing fees from affiliated companies were \$2.7 billion, of which about 80 percent was accounted for by manufacturing. Receipts from unaffiliated foreign companies were \$1.1 billion, of which manufacturing accounted for about 90 percent (table 2). Manufacturing receipts from affiliated companies grew faster than receipts from unaffiliated companies—17.8 percent per year compared with 10.1 percent (chart 13).

Table 2.—U.S. Receipts of Royalties and Fees, by Industry

(Millions of dollars)

	All industries	Mining and smelting <sup>1</sup>	Petroleum <sup>1</sup>	Manufacturing						Other industries <sup>2</sup>
				Total	Chemicals and allied products <sup>3</sup>	Primary and fabricated metals <sup>4</sup>	Machinery <sup>5</sup>	Transportation equipment <sup>6</sup>	Other manufacturing <sup>7</sup>	
Affiliated:										
Royalties and fees <sup>8</sup> :										
1967	1,123	37	187	708	183	45	219	98	181	243
1968	1,245	44	141	781	172	43	256	100	200	279
1969	1,286	54	102	840	182	44	300	83	221	308
1970	1,584	47	188	844	214	46	330	90	257	382
1971	1,757	46	220	1,838	289	45	388	96	370	496
1972	1,911	55	247	1,326	202	47	451	128	322	401
1973	2,300	78	251	1,562	329	60	606	145	413	428
1974	2,338	67	291	1,885	406	62	710	204	486	588
1975	3,251	30	343	2,048	436	50	837	154	531	740
1976	3,282	50	371	2,110	490	64	871	222	602	721
1977	3,534	50	420	2,346	470	67	963	247	667	721
1978*	4,304	58	482	2,314	500	78	1,188	206	684	1,008
Royalties and licensing fees:										
1967	454	2	25	373	96	11	171	18	74	54
1968	553	3	29	450	118	12	217	17	87	71
1969	630	4	10	581	125	16	253	20	106	84
1970	791	3	7	800	157	19	310	21	115	131
1971	874	3	0	723	164	19	382	23	138	142
1972	1,085	2	5	888	193	19	678	25	170	170
1973	1,378	5	7	1,388	299	23	627	31	290	198
1974	1,810	14	9	1,881	293	33	728	31	252	245
1975	1,886	(P)	10	1,873	317	33	837	34	338	(P)
1976	1,850	5	13	1,821	337	26	878	37	333	313
1977	2,212	12	25	1,409	367	20	1,042	45	363	405
1978*	2,692	2	24	2,318	430	28	1,233	33	429	448
Management fees:										
1967	609	26	112	332	65	34	47	60	106	186
1968	691	41	112	331	54	30	50	54	113	208
1969	728	51	122	309	57	29	35	63	115	214
1970	810	45	173	335	62	22	25	69	143	251
1971	882	45	220	313	74	28	6	73	130	264
1972	947	53	241	320	70	28	-27	103	145	231
1973	1,035	73	245	304	76	35	-10	113	177	232
1974	1,184	53	282	305	112	44	-18	174	198	248
1975	1,385	(P)	327	323	122	37	1	180	206	(P)
1976	1,600	50	350	488	132	30	-26	183	180	466
1977	1,943	55	306	530	122	28	-47	100	223	380
1978*	1,970	63	408	560	160	43	-05	214	245	523
Unaffiliated <sup>9</sup> :										
1967	323	1	20	330	70	20	137	30	60	38
1968	427	1	22	301	85	27	168	40	70	28
1969	468	1	32	420	80	20	191	30	84	24
1970	378	1	35	500	103	34	236	42	91	34
1971	618	1	34	635	103	40	289	48	106	48
1972	653	1	41	650	91	30	263	64	118	47
1973	712	2	38	625	101	43	292	69	136	30
1974	751	(P)	28	670	117	43	315	50	141	43
1975	757	(P)	40	678	122	47	300	57	132	36
1976	872	3	50	723	138	47	297	88	172	40
1977	920	3	74	792	148	60	343	53	177	52
1978*	1,066	3	60	932	161	41	430	100	210	51

\* Preliminary. <sup>2</sup> Suppressed to avoid disclosure of data of individual companies.

<sup>3</sup> Less than \$500,000.

1. Consists of the exploration, mining, and development of metallic and nonmetallic minerals, anthracite, bituminous coal and lignite, and primary and secondary smelting and refining of ferrous and nonferrous metals.

2. Consists of all petroleum-related activities: exploration, development, production, transportation, refining and processing, storage, distribution, and wholesale and retail selling.

3. Consists of industrial and agricultural chemicals, plastics, pharmaceuticals, soaps, paints, and miscellaneous chemical products.

4. Consists of the rolling, drawing, and alloying of ferrous and nonferrous metals; the manufacture of castings and miscellaneous primary metal products; and the fabricating of ferrous and nonferrous metal products.

5. Consists of engines, office machines; farm, construction, metalworking, special industry, general industrial, refrigeration, and service machinery; electrical industrial apparatus; electric distributing, lighting, and wiring equipment; radio and television receiving equipment; communications equipment; electronic components; and household appliances.

6. Consists of motor vehicles, aircraft, guided missiles and space vehicles, ships, boats, railroad equipment, and miscellaneous transportation equipment.

7. Consists of foods and beverages; tobacco; apparel and textile products; wood products and furniture; paper goods; printed materials; products made of rubber, plastic, leather, glass, clay or cement; scientific and medical instruments; photographic supplies; watches; jewelry; musical instruments; and toys.

8. Consists of agriculture; forestry and fishing; construction; transportation; communications and utilities; wholesale and retail trade; finance, insurance, and real estate; lodging; advertising; engineering; accounting; and other personal and business services.

9. Excludes film rentals, which are included with receipts of royalties and fees from foreign companies in the international transactions tables published in the Survey of Current Business.

10. Consists mostly of royalties and licensing fees. Management fees are negligible.

Table 3.—U.S. Receipts of Royalties and Licensing Fees in Manufacturing, by Area, 1978 <sup>a</sup>

[Millions of dollars]

	Total	Chemicals and allied products <sup>1</sup>	Primary and fabricated metals <sup>1</sup>	Machinery <sup>1</sup>	Transportation equipment <sup>1</sup>	Other manufacturing <sup>1</sup>
<b>All countries.....</b>	<b>3,170</b>	<b>600</b>	<b>76</b>	<b>1,683</b>	<b>141</b>	<b>649</b>
Affiliated <sup>2</sup> .....	2,218	439	35	1,253	52	439
Unaffiliated.....	952	161	41	430	109	210
<b>Developed countries.....</b>	<b>2,914</b>	<b>525</b>	<b>66</b>	<b>1,606</b>	<b>149</b>	<b>588</b>
Affiliated.....	2,093	395	32	1,223	45	398
Unaffiliated.....	821	130	34	383	104	170
Canada.....	284	55	10	117	(D)	(D)
Affiliated.....	239	49	8	109	(D)	(D)
Unaffiliated.....	45	6	2	8	17	12
United Kingdom.....	432	99	16	206	(D)	(D)
Affiliated.....	350	83	8	173	(D)	(D)
Unaffiliated.....	82	16	8	33	7	18
European Communities <sup>3</sup> .....	1,248	228	19	804	(D)	(D)
Affiliated.....	1,018	175	11	680	(D)	(D)
Unaffiliated.....	230	53	8	115	11	43
Other Europe.....	214	53	6	78	7	71
Affiliated.....	113	28	3	44	1	38
Unaffiliated.....	101	25	3	34	6	33
Japan.....	623	55	10	360	(D)	(D)
Affiliated.....	295	30	2	192	(D)	(D)
Unaffiliated.....	328	25	8	177	62	56
Australia, New Zealand, and South Africa.....	113	35	6	33	3	37
Affiliated.....	77	30	1	17	1	29
Unaffiliated.....	36	5	5	16	2	8
<b>Developing countries.....</b>	<b>255</b>	<b>76</b>	<b>10</b>	<b>77</b>	<b>11</b>	<b>81</b>
Affiliated.....	125	45	3	30	6	41
Unaffiliated.....	130	31	7	47	5	40
Latin America.....	159	49	9	42	9	50
Affiliated.....	84	29	3	18	6	28
Unaffiliated.....	75	20	6	24	3	22
Other countries.....	96	27	(*)	35	2	31
Affiliated.....	41	16	(*)	12	(*)	13
Unaffiliated.....	55	11	1	23	2	18

<sup>a</sup> Preliminary.<sup>b</sup> Suppressed to avoid disclosure of data of individual companies.<sup>c</sup> Less than \$500,000.

1. For industry definitions see footnotes to table 2.

2. Excludes management fees and film rental receipts.

3. Original six members only.

The largest source of receipts in manufacturing in machinery. Affiliated receipts is machinery grew at an average annual rate of 20.0 percent from 1967 to 1978 and consistently accounted for more than one-half the receipts from foreign affiliates in manufacturing (table 2 and chart 14). The latest developments in U.S. technology are principally related to the computer and advanced electronics industries, and were provided almost entirely to foreign affiliates located in the developed countries, particularly Germany, France, the United Kingdom, Japan, and Canada.

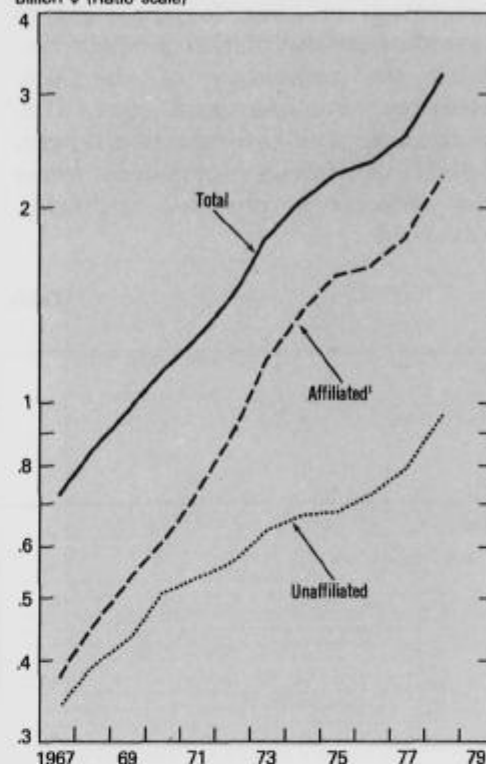
Receipts from unaffiliated foreign companies in the machinery industry accounted for over 40 percent of unaffiliated receipts in manufacturing and grew at an average annual rate of 11.2 percent from 1967 to 1978. Most of the know-how supplied to unaffiliated companies relates to the manufacture of consumer goods, in particular electronic components and electrical equipment

and appliances. Unaffiliated companies in the European Communities (EC) and Japan were the primary sources of these receipts; EC companies accounted for nearly 35 percent and Japanese companies for just over 40 percent (table 3). Receipts from the developing countries increased, to 11 percent of receipts in 1978 from 7 percent in 1967. The major contributors to this increase were the advanced developing countries of Mexico, Brazil, India, Taiwan, South Korea, and Hong Kong. Receipts from Latin America were primarily from companies manufacturing heavy machinery for construction and industrial use; receipts from Asia were primarily from companies manufacturing electronic components for electrical appliances and equipment.

Chemicals and allied products is the second largest source of receipts in manufacturing. Foreign affiliates accounted for over 70 percent of total receipts in this industry in 1978, com-

### U.S. Receipts of Royalties and Licensing Fees in Manufacturing

Billion \$ (Ratio scale)

<sup>1</sup> Excludes management fees.

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pared with slightly less than 60 percent in 1967, as the growth in affiliated receipts exceeded that in unaffiliated receipts—14.8 percent per year compared with 9.1 percent. Technology in agricultural chemicals and fertilizers generally is supplied to affiliates in Canada and France; that in industrial chemicals, plastics, and synthetics to affiliates in the United Kingdom and Germany; and that in pharmaceuticals to affiliates in Germany and France.

Receipts from unaffiliated foreign companies in chemicals and allied products generally involve technology in industrial and agricultural chemicals and pharmaceuticals. Most receipts come from companies in the developed countries; approximately 40 percent are from Germany, principally for industrial chemicals and pharmaceuticals, and Japan, for industrial chemicals. Receipts from the advanced developing countries, especially in in-

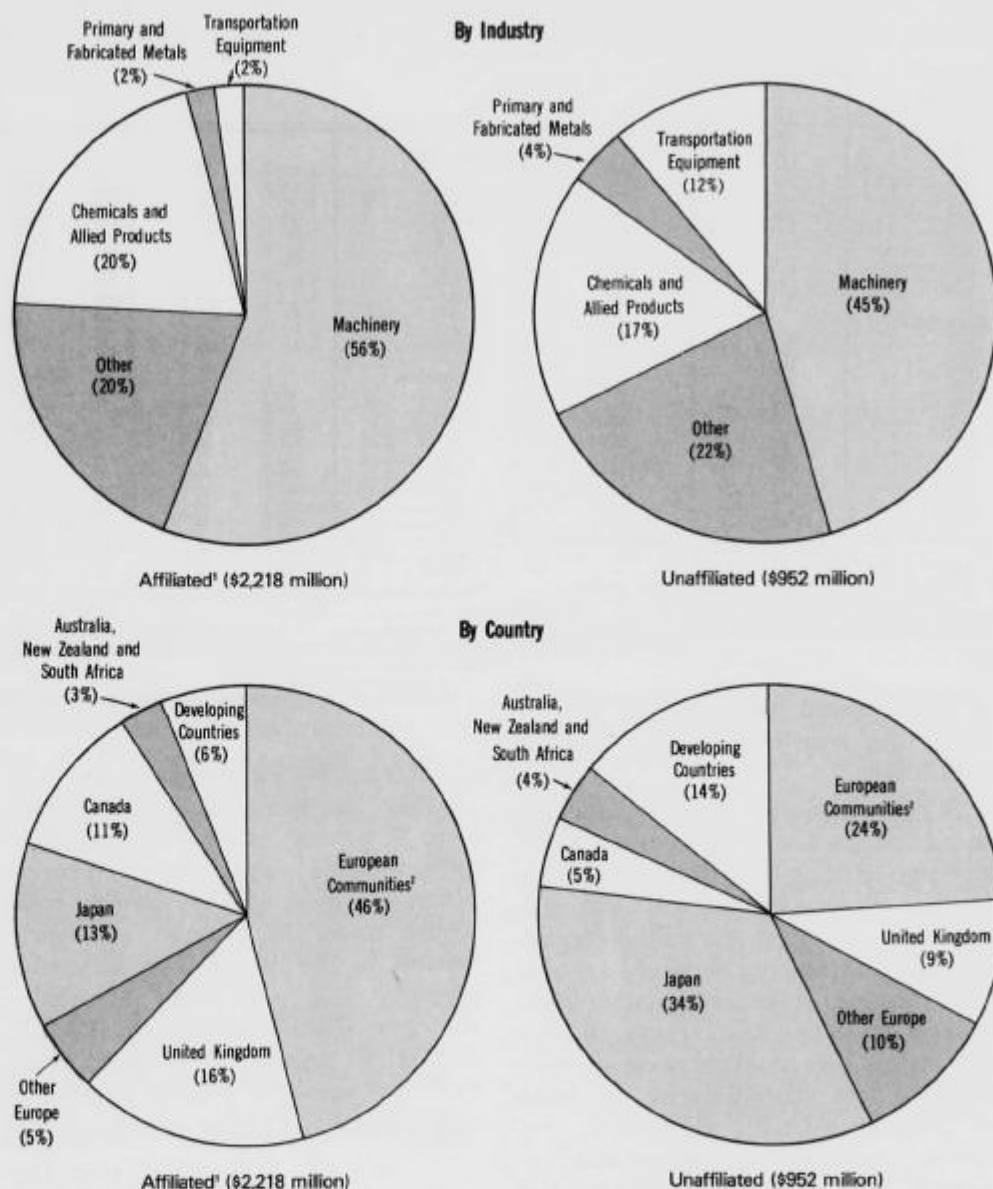


dustrial chemicals from Mexico, grew rapidly, and accounted for 19 percent of unaffiliated receipts in chemicals and allied products in 1978, compared with 14 percent in 1967.

In contrast to the previously mentioned industries, in primary and fabricated metals and in transportation equipment, U.S. companies earn more in receipts of royalties and licensing fees from unaffiliated foreign companies than from foreign affiliates. This difference may partly reflect U.S. trade regulations and union contracts, which specify that the "front-end" technology of these industries, a key factor in U.S. competitive advantage in world markets, cannot be transferred abroad and that certain facets of the production processes can neither be made available to nor performed in another country. Although growth in affiliated receipts was faster than in unaffiliated receipts—11.9 percent per year compared with 9.5 percent, from 1967 to 1978—receipts from unaffiliated foreign companies were approximately 60 percent of total receipts in these industries during this period. More than 90 percent of receipts from unaffiliated foreign companies were from the developed countries, and 50 percent of that total was from Japan. Of the developing countries, most of the affiliated and unaffiliated receipts were from the automotive industry of Latin America, especially Mexico. Receipts from Asian companies that manufacture automotive and aircraft components increased slightly.

In other manufacturing, affiliated receipts increased faster than receipts from unaffiliated foreign companies—17.9 percent per year from 1967 to 1978 compared with 10.5 percent—and accounted for over 90 percent of total receipts in this category in 1978. The majority of affiliated and unaffiliated receipts were from the developed countries. In the textile industry, receipts were from a large number of developed and developing countries. Since 1967, there were few technological developments; however, existing information and techniques, which are relatively inexpensive to acquire, were widely and extensively used.

### U.S. Receipts of Royalties and Licensing Fees in Manufacturing Industries in 1978



NOTE—Percentages are based on preliminary data.

<sup>1</sup>Excludes management fees.

<sup>2</sup>Includes original six members only.

U.S. Department of Commerce, Bureau of Economic Analysis

In the petroleum industry, the largest source of receipts was refining and processing, accounting for more than half of total receipts in 1978. Unaffiliated foreign companies accounted for more than 70 percent of total receipts during 1967–78; growth in unaffiliated receipts was more rapid than in affiliated receipts—12.2 percent per year compared with 8.4 percent. Developed countries accounted for more than 75 percent of unaffiliated receipts.

In the other industries category, receipts from foreign affiliates were far larger than those from unaffiliated foreign companies. Developed countries accounted for 80 percent of total receipts.

**Management fees.**—Management fees transactions between affiliated companies grew less rapidly than royalties and licensing fees from 1967 to 1978—9.1 percent per year compared with 17.7 percent (table 2). In 1967, management fees accounted for 60 percent

Table 4.—U.S. Payments of Royalties and Fees, by Industry

(Millions of dollars)				
	All industries	Petro- leum <sup>1</sup>	Manu- facturing <sup>1</sup>	Other industries <sup>1</sup>
<b>Affiliated<sup>2</sup>:</b>				
1967.....	82	n.a.	n.a.	n.a.
1968.....	80	n.a.	n.a.	n.a.
1969.....	101	n.a.	n.a.	n.a.
1970.....	111	n.a.	n.a.	n.a.
1971.....	118	n.a.	n.a.	n.a.
1972.....	165	—10	114	52
1973.....	200	—1	141	58
1974.....	196	—1	200	—32
1975.....	287	—2	217	72
1976.....	208	—1	219	77
1977.....	243	—3	188	59
1978 <sup>*</sup> .....	306	8	264	120
<b>Unaffiliated<sup>2</sup>:</b>				
1967.....	104	2	100	2
1968.....	106	2	101	3
1969.....	126	3	108	15
1970.....	114	7	103	4
1971.....	128	7	114	7
1972.....	188	5	128	55
1973.....	176	7	163	6
1974.....	186	8	171	7
1975.....	186	8	172	6
1976.....	180	6	177	7
1977.....	191	7	179	5
1978 <sup>*</sup> .....	214	18	192	4

\* Preliminary. n.a. Not available.

1. For industry definitions see footnotes to table 3.

2. Excludes film rentals, which are included with payments of royalties and fees to foreign parents in the international transactions tables published in the SURVEY.

Table 5.—U.S. International Transactions in Royalties and Fees<sup>1</sup> with Affiliated Foreign Residents, by Area

(Millions of dollars)										
Year	Total	United Kingdom	European Communities <sup>2</sup>	Denmark and Ireland <sup>3</sup>	Other Europe <sup>4</sup>	Canada	Latin American Republics and Other Western Hemisphere	Australia, New Zealand, Republic of South Africa	Japan	Other
<b>Receipts:</b>										
1967.....	1,123	153	267	n.s.s.	78	242	175	82	37	140
1968.....	1,246	181	273	n.s.s.	79	265	213	89	45	139
1969.....	1,356	183	267	n.s.s.	89	267	232	76	53	159
1970.....	1,661	217	304	n.s.s.	184	311	241	90	68	177
1971.....	1,757	240	424	n.s.s.	112	338	341	107	83	217
1972.....	1,811	271	473	n.s.s.	131	356	332	115	109	233
1973.....	2,309	362	625	n.s.s.	137	394	343	133	133	283
1974.....	2,333	335	787	n.s.s.	173	517	397	167	190	325
1975.....	2,231	444	832	n.s.s.	214	547	349	183	200	390
1976.....	2,282	445	838	n.s.s.	245	613	269	179	229	424
1977.....	2,484	476	961	n.s.s.	232	652	313	195	279	536
1978 <sup>*</sup> .....	4,284	637	1,285	n.s.s.	285	598	323	206	431	575
<b>Payments:</b>										
1967.....	62	11	—3	n.s.s.	11	43	(*)	(*)	(*)	1
1968.....	60	21	(*)	n.s.s.	0	47	(*)	(*)	(*)	1
1969.....	101	26	3	n.s.s.	13	58	(*)	(*)	(*)	1
1970.....	111	19	3	n.s.s.	21	62	(*)	(*)	(*)	1
1971.....	118	11	3	n.s.s.	29	64	(*)	(*)	(*)	1
1972.....	155	15	3	n.s.s.	73	68	(*)	(*)	(*)	1
1973.....	209	20	23	n.s.s.	81	78	(*)	(*)	(*)	1
1974.....	190	17	5	n.s.s.	149	48	(*)	(*)	(*)	1
1975.....	237	27	17	n.s.s.	114	120	(*)	(*)	(*)	1
1976.....	203	8	25	n.s.s.	131	137	(*)	(*)	(*)	1
1977.....	243	10	37	n.s.s.	99	118	(*)	(*)	(*)	1
1978 <sup>*</sup> .....	306	75	111	n.s.s.	131	127	(*)	(*)	(*)	1

\* Preliminary. <sup>1</sup> Less than \$500,000. n.s.s. Not shown separately.

2. Excludes film rentals, which are included with receipts and payments of royalties and fees in the international transactions tables in the SURVEY.

3. Original six members only.

4. When not shown separately, Denmark and Ireland are included with Other Europe.

of all affiliated royalties and fees; in 1978, they accounted for 33 percent of that total.

In the petroleum industry, affiliates in the Middle East and, in recent years, the United Kingdom, were the primary sources of management fees. U.S. parents have provided specialized consulting and engineering services, supplied maintenance for refineries and oil fields, and conducted seismic surveys. In other industries, the rapid increase in management fees was primarily the result of the demand for architectural, consulting, and engineering services in connection with widespread construction activity in the Middle East, particularly in Iran, Saudi Arabia, and Iraq. Substantial receipts in transportation equipment manufacturing are attributable to extensive U.S. investments in the Canadian automotive industry. U.S. companies provide engineering and technical services to enable their affiliates to make changes necessary for the production of new models.

#### Payments

In recent years, U.S. companies disbursed more in payments of royalties and fees to their foreign parents than to

unaffiliated foreign companies (table 1). In 1967, payments to foreign parents were 37 percent of total payments; in 1978, these payments accounted for 65 percent, suggesting that foreign companies prefer to exercise an equity interest in the use of their intangible property and proprietary knowledge that gives them advantages in the U.S. market. In contrast to receipts, which typically consist of a large number of transactions of varying size, payments

typically consist of a small number of relatively large transactions.

U.S. companies' payments to foreign parents grew more rapidly than payments to unaffiliated foreign companies—22.1 percent per year from 1967 to 1978, compared with 7.1 percent. In 1978, affiliated payments of royalties and fees were \$0.4 billion, of which two-thirds was accounted for by manufacturing. Payments to unaffiliated companies were \$0.2 billion, of which

Table 6.—U.S. Receipts of Royalties and Licensing Fees<sup>1</sup> from Affiliated Foreign Residents, by Area

(Millions of dollars)										
Year	Total	United Kingdom	European Communities <sup>2</sup>	Denmark and Ireland <sup>3</sup>	Other Europe <sup>4</sup>	Canada	Latin American Republics and Other Western Hemisphere	Australia, New Zealand, Republic of South Africa	Japan	Other
1967.....	454	81	165	n.s.s.	25	60	58	20	27	18
1968.....	533	95	197	n.s.s.	44	68	69	27	38	10
1969.....	638	112	218	n.s.s.	57	84	68	32	45	14
1970.....	751	130	260	n.s.s.	64	100	80	35	55	10
1971.....	874	138	318	n.s.s.	78	123	85	40	75	19
1972.....	1,065	163	468	n.s.s.	98	137	80	50	101	23
1973.....	1,370	198	562	n.s.s.	125	142	102	72	139	26
1974.....	1,649	235	680	n.s.s.	118	160	113	80	180	31
1975.....	1,890	273	788	n.s.s.	130	198	110	99	171	34
1976.....	1,958	268	704	n.s.s.	162	228	101	103	205	33
1977.....	2,212	280	904	n.s.s.	157	251	104	111	258	38
1978 <sup>*</sup> .....	2,662	380	1,141	n.s.s.	210	261	116	125	330	73

\* Preliminary. n.s.s. Not shown separately.

1. Excludes management fees and film rental receipts.

2. Includes original six members only.

3. When not shown separately, Denmark and Ireland are included with Other Europe.

manufacturing represented 90 percent (table 4).

**Royalties and licensing fees.**—Unaffiliated transactions in royalties and fees consist almost entirely of royalties and licensing fees. As in the case of receipts, transactions between affiliates and their foreign parents include, as well, management fees. In the tables of this article, royalties and licensing fees are not shown separately from management fees. Problems of disclosure preclude the publication of such a breakdown.

More than 70 percent of total affiliated and unaffiliated royalties and licensing fees were in manufacturing industries during 1972-78; nearly all payments were to the developed countries. Within manufacturing, the largest payments were in chemicals and allied products. European parent transfers of intangible property and proprietary knowledge to their U.S. affiliates are concentrated in pharmaceuticals, industrial and agricultural chemicals, and plastics; transfers from unaffiliated foreign companies are primarily in pharmaceuticals. Other significant transfers are in food and in primary and fabricated metals, for affiliates, and in machinery and in transportation equipment, for unaffiliated companies. In the category of other industries, there are significant affiliated transfers in retail trade.

The majority of affiliated payments was to Switzerland, the United Kingdom, Germany, Canada, and Japan; the

Table 7.—U.S. International Transactions in Royalties and Fees with Unaffiliated Foreign Residents, by Area

(Millions of dollars)

Year	Total	United Kingdom	European Communities <sup>1</sup>	Denmark and Ireland <sup>2</sup>	Other Europe <sup>2</sup>	Canada	Latin American Republics and Other Western Hemisphere	Australia, New Zealand, Republic of South Africa	Japan	Other
<b>Receipts:</b>										
1967	296	55	107	n.s.	20	33	35	24	95	12
1968	497	53	112	n.s.	34	31	41	18	191	18
1969	496	55	124	n.s.	36	28	40	21	183	18
1970	578	56	167	n.s.	30	38	45	23	202	20
1971	618	56	161	n.s.	51	32	44	24	228	18
1972	855	63	158	n.s.	57	36	47	27	290	25
1973	712	74	160	n.s.	50	32	45	31	273	25
1974	751	71	187	n.s.	68	32	53	32	249	31
1975	757	79	108	n.s.	75	38	60	36	210	42
1976	822	73	210	n.s.	82	45	63	43	245	37
1977	930	82	228	n.s.	119	42	71	41	276	50
1978*	1,025	93	251	n.s.	103	51	80	46	343	61
<b>Payments:</b>										
1967	194	32	46	n.s.	16	2	3	(3)	4	(3)
1968	106	35	47	n.s.	12	4	3	(3)	4	(3)
1969	130	41	39	n.s.	14	4	4	1	4	(3)
1970	114	35	59	n.s.	13	4	5	(3)	4	(3)
1971	123	37	65	n.s.	18	5	5	(3)	4	(3)
1972	139	44	57	n.s.	21	6	5	1	6	(3)
1973	175	53	72	n.s.	28	8	5	1	18	(3)
1974	185	57	70	n.s.	20	7	7	1	12	(3)
1975	188	75	67	n.s.	17	0	4	1	0	(3)
1976	183	77	67	n.s.	14	9	6	1	13	(3)
1977	201	72	83	n.s.	15	8	11	1	16	(3)
1978*	214	84	87	n.s.	20	10	14	1	15	(3)

\* Preliminary. \* Less than \$500,000. n.s. Not shown separately.

1. Original six members only.

2. When not shown separately, Denmark and Ireland are included with Other Europe.

majority of unaffiliated payments was to the original six members of the EC and to the United Kingdom. Unaffiliated payments to Japan and Latin America increased in recent years.

**Management fees.**—Management fees transactions between affiliated companies exceeded royalties and licensing fees in recent years. Approximately 60 percent of management fees were in manufacturing industries during 1972-78. The largest payments were in chemicals and allied products, mainly reflecting the allocation of large research and development expenses by European companies to their U.S. affiliates.

Fluctuations in the category of other industries were primarily due to sizeable management fees transactions between U.S. affiliates and their parents in Japan and Canada. In the automotive industry, transactions between U.S. affiliates and their Japanese parents resulted in net receipts, because receipts of U.S. affiliates from their parents, for warranty work performed and for U.S. training provided to Japanese executives, exceeded their payments to their parents. In the insurance industry, the Canadian practice of allocating operating expenses to U.S. affiliates has contributed to significant fluctuations.